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ABSTRACT

Methods and products for targeting delivery vectors, such as adenoviral gene delivery particles, to selected cell types are provided. The methods rely on targeting by a bifunctional molecule that specifically complexes with a protein on the vector particle surface and with targeted cell surface proteins. The targeted cell surface proteins are any that activate the phosphatidylinositol-3-OH kinases. The bifunctional molecules, compositions, kits, and methods of preparation and use of the vector/bifunctional molecules for gene therapy are provided.